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WPI Acc No: 1991-010254/ 199102

XRAM Acc No: C91-004542

**Polyvinyl alcohol film with improved solubility - for prodn.  
of sachets for detergents**

Patent Assignee: NLN SA (NLNN-N)

Inventor: LE NIGEN N C

Number of Countries: 013 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 407301	A	19910109	EP 90401945	A	19900705	199102 B
FR 2649403	A	19910111	FR 899059	A	19890705	199109

Priority Applications (No Type Date): FR 899059 A 19890705

Cited Patents: EP 284334; EP 291198; EP 79712

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
EP 407301	A			

Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE

Abstract (Basic): EP 407301 A

A water-sol. polyvinyl alcohol film having improved water-solubility partic. in presence of borate or perborate ions, comprises a PVA polymer (I) contg. 80-92 mole % PVA or a PVA/acrylic acid copolymer (II) contg. 30-95 mole % PVA. The novelty is that the film contains 1-20 wt. % sulphonated hydrotopic agent.

(I) is obtd. by partial hydrolysis of PVAC and comprises units of formula (III) and (IV), where  $x/(x+y)$  is 80-92 mole %; the polymer being opt. partially crosslinked. (II) comprises units of formula (V) and (VI), where X is H, Na, K, NH<sub>4</sub> or 1-6C alkanolamine and  $m/(m+n)$  is 30-95 mole % and the copolymer is opt. partially crosslinked. The sulphonated hydrotopic agent contains a benzene ring opt. substd. by 1-4C alkyl gp(s). and it is pref. Na,K, or NH<sub>4</sub> toluene-, cumene- or xylene-sulphonate.

USE - The film is used for preparing sachets-doses of detergents for laundry, partic. for washing machines. (8pp Dwg.No.0/0)

Title Terms: POLYVINYL; ALCOHOL; FILM; IMPROVE; SOLUBLE; PRODUCE; SACHET; DETERGENT

Derwent Class: A14; A92; A94; D25; Q34

International Patent Class (Additional): B65D-065/46; C08J-005/18;

C08K-005/42; C08L-029/04; C11D-017/04; D06F-039/02

File Segment: CPI; EngPI

Manual Codes (CPI/A-N): A08-S08; A10-E09B; A12-P06C; A12-S06; D11-D

Plasdoc Codes (KS): 0037 0206 0042 0045 0226 0231 2007 2020 2179 2198 2280

2318 2336 2427 2441 2509 2513 2575 2578 2776 2790 0787 3002 0044 0047

0411 0789 2001 2008 2022

Polymer Fragment Codes (PF):

\*001\* 014 02& 04- 06- 066 067 075 09- 10& 15- 231 244 245 289  
316 318 342 359 373 381 392 398 431 435 473 532 537 546 57- 575 583  
687 688 724

\*002\* 014 02& 034 04- 06- 066 067 074 075 076 09- 10& 15- 230  
231 24- 244 245 250 27& 289 316 318 334 342 359 373 381 392  
398 431 435 473 50& 532 537 546 57- 575 583 687 722 724

Derwent Registry Numbers: 1740-U

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